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PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

APPLICANTS:	Mousseau et al.
TITLE:	System and Method for Pushing Information from a Host System to a Mobile Data Communication Device
SERIAL NO.:	09/782,412
FILING DATE:	February 13, 2001
EXAMINER:	not yet assigned
GROUP ART UNIT:	not yet assigned
ATTORNEY DOCKET NO.:	555255012194

HON. ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

PETITION TO MAKE SPECIAL BECAUSE OF ACTUAL INFRINGEMENT UNDER 37 CFR § 1.102

In accordance with 37 CFR § 1.102(d) and MPEP § 708.02, applicants hereby petition to make the above referenced application special because of actual infringement. This application is a divisional of US Patent Application Serial No. 09/087,623, filed May 29, 1998.

As required by MPEP § 708.02, applicants enclose herein a Declaration of David B. Cochran In Support Of Petition To Make Special Because Of Actual Infringement.

The petition fee of $130 under 37 CFR § 1.17(i) also accompanies this petition. The Assistant Commissioner is hereby authorized to charge any additional fees which may be required by this paper to Jones, Day, Reavis & Pogue Deposit Account Number 501432, account 555255012194.

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I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231
on 5-1-2001
By: Deborah A. Peterson

Respectfully submitted,

David B. Cochran

David B. Cochran
Reg. No. 39,142
JONES, DAY, REAVIS & POGUE
901 Lakeside Ave.
Cleveland, Ohio, 44114

Date: 4/30/01

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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HON. ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

DECLARATION OF DAVID B. COCHRAN IN SUPPORT OF PETITION TO MAKE SPECIAL BECAUSE OF ACTUAL INFRINGMENT

I, David B. Cochran, am the Attorney of Record in this case and make the following declarations:

1. There is an infringing device actually on the market and an infringing method in use.

2. I have made a rigid comparison of the alleged infringing device and method with the claims of the above referenced application. In my opinion, some of the claims are unquestionably infringed.

3. I have a good knowledge of the pertinent prior art. All such material art is already of record, having been filed in an Information Disclosure Statement.

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231
on 5-1-2001

By: Deborah A. Sateran

Respectfully submitted,

David B. Cochran

David B. Cochran
Reg. No. 39,142
JONES, DAY, REAVIS & POGUE
901 Lakeside Ave.
Cleveland, Ohio, 44114

Date: 4/30/01

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
RICHMOND DIVISION

NTP, Inc.	)	Case No. 3:01 CV 767
	)	
Plaintiff,	)	Judge James R. Spencer
	)	
v.	)	
	)	
RESEARCH IN MOTION, LTD.	)	
	)	
Defendant.	)	

DECLARATION OF DAVID A. KEENEY

I, David A. Keeney Jr., declare as follows:

1. My name is David A. Keeney Jr. I am over the age of 18 and am fully competent to make this Declaration. Currently, I reside at 8615 S. Kenwood Lane, Tempe, AZ 85284. Unless otherwise indicated, I have personal knowledge of the facts set forth herein.

2. I attended various universities during the period from 1979 through 1983. While attending school, I became interested in computer systems and programming. That interest intensified when I began working for Rockwood Insurance company. There, I designed a custom software application for tracking policies and claims. A short time later, in approximately 1983, I began working for Mountain States Software as a Systems Analyst and Programmer. My duties included custom software development, systems analysis, software demonstration and programming training. Eventually, I went full time at Mountain States Software and left school.

3. I left Mountain States Software in late 1985 and began working for Tanner Southwest, Inc. ("Tanner Southwest"), a large construction company mainly operating in the heavy highway construction and concrete business. My position at Tanner Southwest was Micro Systems Technical Analyst and my responsibilities included all aspects of implementation of microcomputers in the company. I was also responsible for personal computer ("PC") operations, Local Area Networks ("LANs"), standards, security, hardware purchasing and PC based software development. A more thorough discussion of my experience at Tanner Southwest is provided below in connection with my description of Tanner Southwest's Message System.

4. In January 1987, Ron Tanner (another Tanner Southwest employee) and I left Tanner Southwest and founded what later became TekNow!, Inc. ("TekNow!"). While at TekNow!, Ron and I developed and sold the System for Automated Messaging ("SAM"), which

is described in detail below, as well as other technology that is described below. My duties at TekNow! are discussed below as well.

5. In 1990, I left TekNow! to work for Deluxe Data Systems, Inc. as the manager of software development and computer operations. After leaving Deluxe, I began consulting, providing custom software development services and development of commercial software products for the paging industry and Internet commerce. Currently, I am the President and Co-Founder of Inventive Labs, LLC., a provider of commercial software, custom software development services, and computer consulting. Inventive Labs commercial software currently is targeted at the paging/wireless industry (product NTpage) and the Internet commerce industry (product RoboCharge) providing secure credit card processing over the Internet.

I. THE DEVELOPMENT OF "THE MESSAGE SYSTEM" AT TANNER SOUTHWEST

6. Using technology to gain a competitive edge was part of Tanner Southwest's philosophy. The company acted on that philosophy when it made the decision to move more systems away from mainframes to PC's. *See,* 1987 PC Week article, attached as Exhibit 1(A). My charter was to install the PC's and get them on LAN's at the various locations of the company as well as to provide new software applications on the PC's that would make the company more efficient and effective.

7. While developing such software, it became apparent that effective communication was a problem at Tanner Southwest. At that time, Tanner Southwest's mainframe system had electronic mail (e-mail) capability. But that system was not widely used because it was cumbersome and not user friendly. Additionally, many of the company's senior executives (the people who needed e-mail the most) did not have a mainframe terminal and, therefore, did not have e-mail access. These executives were to receive desktop PCs, however, as part of the

company's plan to move away from mainframes. With these problems in mind, Ron Tanner and I began thinking about ways to simplify and improve the company's e-mail system.

8. I believed (and still believe) that e-mail communication was oftentimes a more effective way to reach people than communication via telephone, messages, or other means because e-mail allows the message to come to the individual. A person should not always have to go and do something to get their messages. Both sending and receiving the messages, moreover, had to be quick and easy, otherwise Tanner Southwest's employees would simply pick up the phone like always. These concepts were the genesis of what became known as Tanner Southwest's "Message System."

9. We (Ron and I) began to implement our ideas into Tanner Southwest's business around mid-1986. The response was tremendous. By the end of 1986, the Message System consisted of several components: (i) software to send messages from a PC on the LAN; (ii) software to review messages you had sent or received; (iii) Server Software, which routed the messages to the appropriate location and device; (iv) Server to Server communications via a modem, so users could send a message to someone at another location without regard to where they were; and (v) small desktop thermal printers called "message printers" (later called SAM printers) which printed the messages directly to the desktop. Software was also developed for Tanner Southwest's IBM Mainframe that allowed any user to send messages from a mainframe terminal to anyone with either a PC equipped with software that was later called SAMview or a message printer. The addition of the mainframe software added several hundred users to the system overnight.

10. By the end of 1986, the Message System was in widespread use throughout the company's multiple locations both inside and outside the Phoenix area. A Tanner Southwest employee could receive his or her messages without doing anything: the messages came to

them. About this time, Ron and I decided to leave Tanner Southwest and form our own company. Ron and I resigned from Tanner Southwest and founded what later became TekNow! Inc. in January 1987.

II. TEKNOW!'S SYSTEM FOR AUTOMATED MESSAGING ("SAM")

11. TekNow!'s charter was to produce great software that would enable simple and effective communication. The System for Automated Messages ("SAM") was our primary product. The basic premise behind SAM was that no one should ever have to go check for messages again. SAM was, at its heart, a simple, easy to use e-mail system that permitted delivery of messages (e-mails) from a sending device to a receiving device through the SAM Server. Unlike other e-mail systems of the day, however, SAM did not just permit messages to be sent between computers on the same network. Rather, SAM allowed messages to be sent from a variety of sending devices (*e.g.*, PCs, portable computers, Telecomputers (IXO handheld terminals), mainframe e-mail systems such as IBM Profs, LAN e-mail systems, and public subscription e-mail systems, etc.) to a variety of receiving devices (PCs, message printers/SAM printers, teleprinters, facsimile machines, mainframe e-mail systems, LAN-based and public subscription e-mail systems, and both numeric and alphanumeric pagers with associated printers). While all of this functionality was not developed overnight, all of this functionality existed -- that is, had been developed, sold, and was in use by TekNow!'s customers -- by at least the end of 1989. And, in fact, much of the functionality was developed marketed and sold much earlier.

12. The two sections below describe SAM in greater detail. Section II(A) describes the hardware and software components of SAM at a high level as well as providing a very general description of SAM's functionality. Section II(B) describes SAM's functionality and operation in greater detail. Figures have been included for ease of reference where appropriate.

A. High Level Description Of SAM -- The Hardware And Software Components

12.5 Before one can fully understand SAM operations, one needs to understand SAM's basic hardware and software components. A description of much of the SAM hardware and software is found in the 1989 SAM Reference Manual ("Reference Manual"). This manual was provided to all SAM purchasers. A copy of that manual is attached hereto as Exhibit 1.[1] A conceptual, block diagram of SAM is reproduced below.

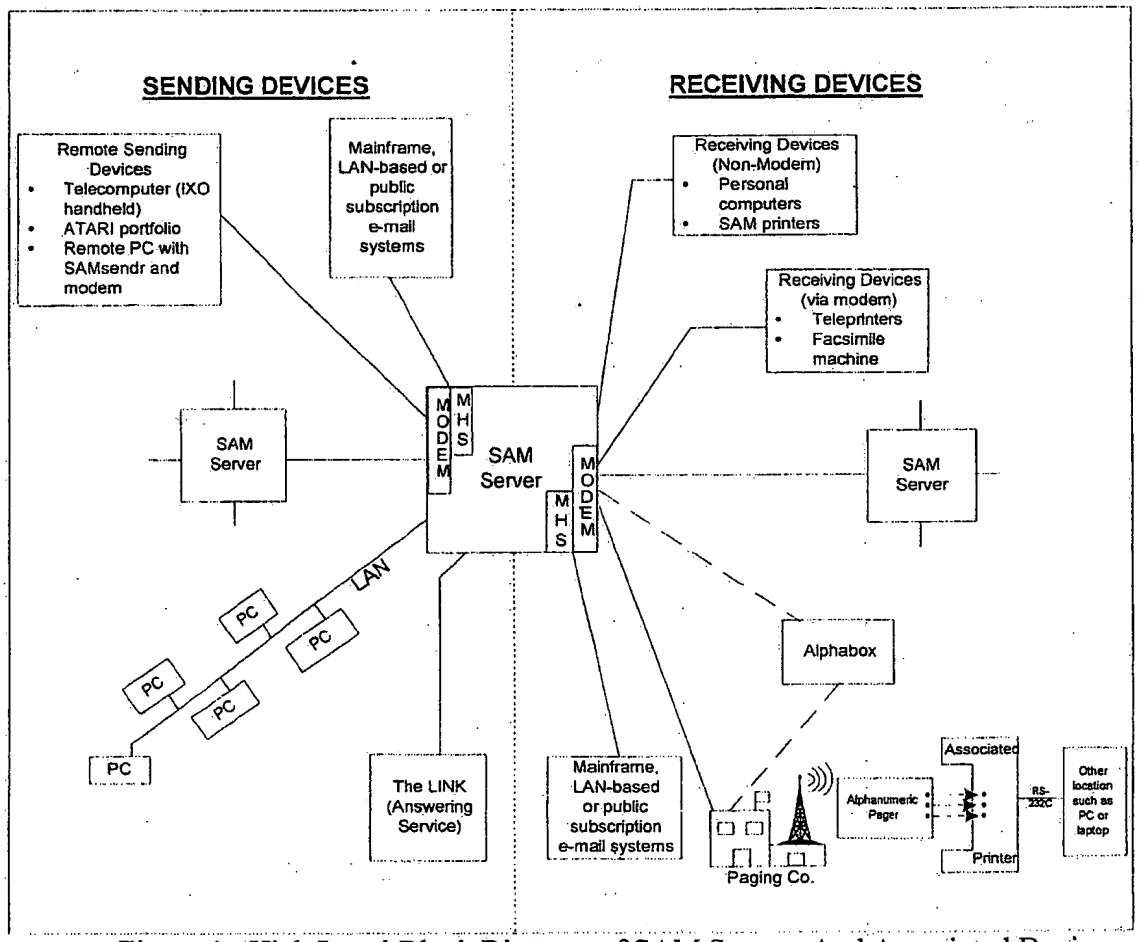

Figure 1: High Level Block Diagram of SAM System And Associated Devices

[1] A more high level description of SAM operation is found in the SAM User's Manual, attached hereto as Exhibit 2.

1. The Message Server ("SAM Server")

13. SAM was based around a client server architecture. The system revolved around the Message Server or SAM Server (center box of Figure 1) as it was commonly referred to and its Message Server program SAMserve. The SAM Server, including its processor(s) and its associated SAMserve software, provided all the connections between any sending or receiving device supported by SAM. Depending upon the application, the SAM Server acted as a router, translator, gateway, and/or interface so that different devices could communicate with one another regardless of the type of communication system, network and/or protocols that were used. The SAM Server also allowed communication between different SAM systems via modem over the public telephone network, LAN, WAN and/or leased line connections.[2] Additional functionality of SAMserve software is found in Chapter 16 of the Reference Manual. *See* Ex. 1 at RIM 0105624-631.

2. SAM Sending Devices and Associated Software

14. The sending devices are depicted on the left side of Figure 1. One of the truly revolutionary aspects to SAM was the Message Handling System ("MHS") software. This software permitted communication between different types of e-mail systems via SAM's MHS Gateway. A SAM user (or an MHS user) could send an e-mail from (i) any MHS compatible LAN e-mail system (such as the Coordinator, Da-Vinci, WordPerfect Office, Higgins, etc.), (ii) compatible mainframe e-mail systems (such as IBM Profs and Dec All-In-One), or (iii) public subscription e-mail services (such as MCI mail and Compuserve) to someone else on any of these e-mail systems, or to someone's SAM receiving device (*e.g.*, alphanumeric pager, SAM printer, PC, etc.). SAM transparently reformatted and delivered the message/email via the MHS Gateway. This permitted inter-company/inter-email system communication -- a

[2] Several figures depicting possible configurations for SAM are attached as Exhibit 38.

revolutionary concept for the time. The MHS Gateway software is further described in Appendix E of the Reference Manual. Ex. 1 at RIM 0105703-705.

15. The most common way to send a message using SAM was with a PC, either a LAN-based PC or a remotely located PC (depicted on the left side of Figure 1). Both the SAMsend and SAMshell software modules were used to send messages with LAN-based PCs. The SAMsend module is further described in Chapter 14 of the Reference Manual. *See* Ex. 1 at RIM 0105603-613. Using SAMshell, one could "pop-up" SAM over whatever application was running on the PC at the time. The user could then compose a message, send it and then return to the application that was previously running exactly where the user left off before sending the message. SAMshell is described in Chapter 17 of the Reference Manual. Ex. 1 at RIM 0105632-634.

16. A SAM user could also send messages to others from a remotely located PC using SAMsendr (which stands for SAMsend remote) software and a modem. This software is described in Chapter 15 of the Reference Manual. Ex. 1 at RIM 0105614-623, as well as in the SAMsendr User Manual, attached as Exhibit 3. A user, using SAMsendr, could send messages to any receiving device through the SAM Server, or to a Personal Message Receiver ("PMR"), such as the Motorola PMR2000 pager, without going through the SAM Server. Ex. 1 at RIM 0105614-15, Ex. 3 at RIM 0107271. To send a message to a PMR without going through the SAM Server, the sender must enter the telephone number of the PMR in the "phone" field. Ex. 3 at RIM 0107275.

17. SAM users could also send messages remotely using portable devices. One such device was a Telecomputer IXO handheld terminal (*see* remote sending devices box, upper left of Figure 1). A user would connect to a telephone line, compose a message and then click send. The SAM Server would receive the message, determine the appropriate address, perform any

necessary address translations and then route the message as appropriate. A photograph of the Telecomputer is attached as Exhibit 4, and a manual describing the Telecomputer is attached as Exhibit 5. Another remote device was an Atari Portfolio handheld computer (*see* remote sending devices box, upper left of Figure 1). This device, which was demonstrated at trade shows, used DTMF tones to communicate with the SAM Server. A photograph of an Atari Portfolio is attached as Exhibit 6. SAM also permitted connections to other SAM Servers (shown in the left middle portion of Figure 1), which, in turn, could be connected to any of the previously-mentioned sending devices.

18. Lastly, messages could be sent via TekNow!'s answering service company called "The LINK." The LINK, depicted by the box in the lower left of Figure 1, is described in more detail in paragraphs 51-54 below.

19. All of these sending devices contained processors and application software.

3. SAM Receiving Devices

20. The receiving devices are depicted on the right side of Figure 1. Another of the revolutionary aspects of SAM was that it could route messages to radio frequency ("RF") receivers, such as alphanumeric receiving devices (*i.e.*, alphanumeric pagers). Referring to the lower right portion of Figure 1, the alphanumeric pager, for example, a Motorola PMR2000 (Personal Message Receiver), allowed a user to receive full text messages. A SAM user could identify such a pager as one of the receiving devices to which to his or her messages could be sent. When the SAM Server received a message for that user, the server software would talk to the paging company and ultimately the full text of the message would be sent to the user's PMR2000 pager (or other pager).[3] A photograph of a PMR2000 pager is attached as Exhibit 7. Manuals describing the PMR2000 pager are attached as Exhibits 8(A) and 8(B), respectively.

[3] Section II(B) below describes this process in greater detail.

21. The Motorola PMR2000 could store up to 1984 characters, dynamically allocated in up to 16 memories. Ex. 8(A) at RIM 0107201. In addition to receiving e-mail messages from SAM sending devices, the PMR2000 could receive other information, such as stock quotes, from other sources. Ex. 8(A) at RIM 0107204. A PMR2000 user could also print the message(s) with the PMR2000 Personal Message Center printer. Ex. 8(A) at 0107201. This device permitted a PMR2000 user to download his or her messages into a printer and selectively choose to print all, some or none of the messages without re-keying the messages. A manual describing the functionality of the printer is attached as Exhibit 9.

22. Other alphanumeric pagers were supported by SAM as well. At least one of these pagers, the NEC D4α pager, in addition to having a connectable printer, permitted the recipient of the message to "output data" (*i.e.*, transfer (download) the message) to another location such as a personal computer or a laptop computer. *See, e.g.*, NEC D4α pager manual, attached as Exhibit 10(A).[4] To accomplish such a transfer, the user implemented the RS-232C interface on the connectable printer to connect the printer to the other location. Ex. 10(A) at RIM 0101293. Thus, by 1989, the message would now truly come to the user -- anywhere and anytime.

23. In addition to receiving his or her messages wirelessly via a pager, a SAM user had several other options for receiving devices.[5] A SAM user could read and review messages on his or her PC on the LAN, for example, using the SAMview software. *See* Reference Manual, Chapter 21, Ex. 1 at RIM 0105660-667. Similarly, the SAMnet module allowed a user to receive real-time messages on his or her network workstation (PC). A beep or chirp signaled the arrival of a message. The message could be read by pressing a hot key, which caused the

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[4] In addition to the previously mentioned pagers, SAM also supported other alphanumeric pagers (*e.g.*, pagers manufactured by Panasonic Ex. 10(B) and Uniden, as well as numeric pagers using the SAMbeep software. See Reference Manual, Chapter 4, Ex. 1 at RIM 0105559-562. All of the alphanumeric pagers contained a processor.

[5] Note, a SAM user could choose to receive his or her messages on more than one device.

message to "pop-up" over the top of the existing application. Once the message had been read, the user could close the window and resume the previous application. *See* Reference Manual, Chapter 8, Ex. 1 at RIM 0105573-576.

24. Messages could also be routed to a desktop message printer (SAM printer), a teleprinter, and/or a facsimile machine. A manual and brochure describing the SAM printer are attached as Exhibits 11(A) and 11(B), respectively. The message printers ("SAM printers") were an integral part of the SAM system.

25. The teleprinter received messages from SAM over a standard phone line. The messages could be read real-time or picked up at a later time. The attached teleprinter manual describes the teleprinter's operation in more detail. *See* Exhibits 12(A) and 12(B), respectively. A photograph of the teleprinter is also attached as Exhibit 13. The SAMfax software allowed sending a message or a text document directly to a facsimile machine. This software is described in Chapter 5 of the Reference Manual. Ex. 1 at RIM 0105563-567.

26. The SAM Server could also route messages to other mainframe, LAN-based or public e-mail systems using SAM's MHS Gateway software, or messages could be routed from one SAM Server to a second, remote SAM Server. The remote SAM Server could then route the message to any of the previously-mentioned receiving devices. Each SAM Server, therefore, functioned as an independent communication system that would communicate with other systems as well.

B. Detailed Description Of SAM's Operation

27. I will now describe the operation of SAM in detail. To do so, I will use an example where a user (Fred Friendly) sends a message (e-mail) from his LAN-based PC to Fred's fellow employee (Tommy Traveler) on Tommy's Motorola PMR2000 pager using (1) a

generic paging company and (2) TekNow!'s paging company.[6] The initialization and set-up procedure is generally similar regardless of the paging company used and, therefore, will be discussed first.

1. SAM Initialization And Set-Up

28. To better understand SAM's operation, it is necessary to understand how the SAM Server is structured. SAM requires a dedicated or non-dedicated computer (the Message Server or SAM Server) to handle the various messaging tasks that SAM performs. SAM utilized software designed to create, send and manage electronic mail. The previously mentioned SAMserve software describes the various options for setting up the SAM Server. *See* Reference Manual, Chapter 16, Ex. 1 at RIM 0105624-631. Once the hardware connections (modem, PIM master board, and fax board) have been made (*See id.* at RIM 0105546-556) the software must be installed.

29. The software installation can be divided into nine (9) steps. *See id.* at RIM 0105548-549. In the first two steps, our user (Fred) creates directories on a hard disk by installing copies the User Disk and Supervisor and Options Disk. These directories will contain all the user programs and files, as well as all the supervisor and utility programs. The third step consists of setting up the path to search the newly created directories.

30. In the next (fourth) step, Fred executes SAMinit to create and initialize all the data files needed for the operation of SAM. The SAMinit module is described in Chapter 6 of the Reference Manual. Ex. 1 at RIM 0105568-570. This software essentially creates a database (usually located on a network drive on a LAN, but may be on the SAM Server). SAM used a database management system known as Btrieve. Although it was really a tool to manage

[6] TekNow! also operated a paging company in the Phoenix, Arizona area at this time. This aspect of TekNow! is discussed in more detail in paragraphs 46-50 below.

information stored either on the file server or on the Sam Server, I refer to the Btrieve management system and Btrieve files created for use by SAM collectively as the "SAM database" throughout this declaration because that is what it was called by TekNow!'s employees and customers.

31. The SAM database was composed of several physical files that contained the information about messages, delivery queues, addressing and other information SAM needed to operate. Generally, each of the SAM software programs stored data in one or more Btrieve files. For example, the SAMuser program (discussed later) stored the information into SAMUSER.DAT, SAMroute stored the information in SAMROUTE.DAT, messages received and sent through the SAM System were stored in SAMFILE.DAT. These files and others contained information, including all the configuration, user, security, and message information, necessary for SAM operation.

32. Fred next initiates the SAMsites software (the fifth step) to set up, modify or delete remote message servers from which SAM will be sending or receiving messages. *See* Reference Manual, Chapter 18, Ex. 1 at RIM 0105635-641. The software also allows for the definition of other message servers in the customer's (Fred's or Fred's company's) Wide Area Network ("WAN") and how often and during what times messages can be sent to those sites. Other SAM software modules, for example, SAMpage, SAMfax, SAMTprint, and MHS would also be set up at this time. To have messages routed to his alphanumeric pager, for example, Fred would execute SAMpage, which is described in Chapter 9 of the Reference Manual. Ex. 1 at RIM 0105577-582. Fred enters the paging terminal name (*e.g.*, "TEKNOW! PAGING" for

TekNow!'s paging company), the paging company's phone number, a dialing time block, and a characters per message limitation.[7] *See id.* RIM 0105578.

33. Likewise, to set up MHS capability (allowing communication using multiple types of e-mail systems having different protocols), Fred must setup the MHS gateway. To do so, the directory path where MHS created its directories and the name that Fred gave the gateway that was created in MHS must be set up in SAMSETUP.DAT file. If planning to send from SAM, Fred would also set up an MHS device in SAMuser portion of the database discussed below. The MHS set up procedure is further described in Appendix E of the Reference Manual. *Id.* at RIM 0105703-705.

34. The next (sixth) step is to execute SAMuser, which allows for the entry of information about the users of the SAM system. *See* Reference Manual, Chapter 20, Ex. 1 at RIM 0105647-659. This information, together with the information in SAMsites, and the previously discussed SAMpage, SAMTprint, SAMfax, SAMbeep and MHS software modules, tells SAM where to send messages. Note, a "user" to the SAMuser software is a device (alphanumeric or numeric pager, teleprinter, facsimile machine, etc.) not a person. Thus, one person, for example Fred or Tommy, may be many users to SAMuser because that person can designate many devices as receiving devices to which they want their messages sent. The Reference Manual describes this concept at Chapter 20, page 2. Ex. 1 at RIM 0105648. To prevent confusion, I will use the term "device" to describe "users" (*i.e.*, sending and receiving devices) when discussing the SAMuser software and associated information created in the database. The term "user", therefore, unless stated otherwise, refers to a person and the term "device" refers to a thing (*i.e.*, PMR, printer, computer, etc.).

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[7] Note, if Fred wants his messages to go to other devices he must execute the appropriate software (e.g., SAMbeep for numeric pagers, SAMfax for facsimile machines, and SAMTprint for the SAM printer) to provide SAM the appropriate information.

35. After the device information and a password have been entered (*See id.*), the site name (location) where the device is located is entered. In Fred's case, options include: (1) the "sitename" Fred assigned to the SAM Server in SAMsites, (2) the "sitename" Fred assigned in SAMpage for the paging company[8] in the case of an alphanumeric pager or in SAMbeep in the case of a numeric pager, or (3) the "sitename" Fred assigned the teleprinter in SAMTprint, etc. A full list of options is shown on pages 20-2 and 20-3 of the Reference Manual. *Id.* at RIM 0105648-649. These entries will be later validated from the SAMsites, SAMTprint, SAMpage, SAMfax and/or SAMbeep files as part of SAM's security check procedures.[9] Next, Fred identifies the type of message device being used by entering the type of device (PR, for example, refers to alphanumeric pagers), the series of the device (default value for an alphanumeric pager), and the address (*i.e.*, the identification number) of the device (the telephone number or PIN of the alphanumeric pager (located on the back of the Motorola PMR2000)).[10] *See id.* at RIM 0105649-650.

36. Once all the devices have been defined, Fred executes SAMroute to facilitate routing the messages to the appropriate device. If, for example, Fred wants messages to come to his alphanumeric pager, PC, Teleprinter, and facsimile machine, Fred would enter the "USER NAME" for each of those devices in the routing table. This procedure is described in Chapter 12 of the Reference Manual. *Id.* at RIM 0105592-597. Any message sent to Fred would, therefore, go to all the devices that he had routed.

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[8] SAM was compatible with a variety of paging companies (*e.g.*, PacTel, SkyTel, Mobilecomm (BellSouth), American Paging, and others).

[9] Additional security features of SAM are described in Chapter 13 of the Reference manual. *Id.* at RIM 0105598-602.

[10] Note, each pager usually had its own unique telephone number or PIN number.

37. The seventh, eighth and ninth steps involve setting up network security, setting up for Login to SAM, and starting the SAM Server. These steps are discussed in more detail on pages 2-7 through 2-9 of the Reference Manual. *Id.* at RIM 0105552-554.

38. Once the system is initialized, Fred is ready to send his first message.[11]

2. Sending A Message To An Alphanumeric Pager

39. To create a message, Fred sits down at his PC and initiates SAMsend. *See* Chapter 14, Reference Manual, Ex. 1 at RIM 0105603-613. The SAMsend screen then appears. Fred fills out the appropriate fields and types the message. The completed message screen is depicted in the figure below. *See also* SAM User Manual, attached as Exhibit 2, SAM Printer brochure, attached as Exhibit 11(B) at RIM 0105763 center figure.

FOR:	Tommy Traveler
FROM:	Fred Friendly
SUBJECT:	SAM [OPTIONAL]
PHONE:	343-555-1212 [OPTIONAL]
MESSAGE:	Tommy, the deal is closed.

Figure 2: SAM Message Screen

40. Once the message is completed, Fred presses the F10 key to send the message. A date and time stamp are automatically appended as part of the message that is created when the message is sent. The message also receives a unique message identification number. This identification number is used to track the message. The message also stores the SAM user that was logged into the computer that sent the message (*i.e.*, Fred). The message is then encrypted

[11] Note, in my example, Tommy must also have previously completed portions of the above-described initialization procedure to define his devices and routing table.

and saved temporarily on a shared drive on the file server.[12] Software in the SAM Server scans (polls) the shared drive for new messages. When a new message is detected it is processed. The message is opened and decrypted. The address (*i.e.*, the name on the "for" line) is then read and, once read, the addressee's user information is determined from the user's information in the SAM database (*i.e.*, the software compares the addressee's name against a look-up table to detect a match.)[13] The routing record is then read. A copy of the message is also created in the SAM database. This process is graphically depicted below.[14]

[12] Depending on the system configuration, the message may be sent directly to the SAM Server and not to a file server.

[13] If no match is found, an error occurs and the message is not sent further.

[14] Sending a message from, for example, a mainframe e-mail system such as IBM Profs via the MHS Gateway was slightly different. Fred would first compose his message in Profs, including the address (*e.g.*, "Tommy@TekNow"). Once complete he would send the message. Profs would then determine from that address that it needed to route the message to the Profs MHS Gateway. The Profs MHS Gateway would then transmit the message to the correct MHS hub. The message would then reside in the MHS hub until SAM (via its MHS Gateway) determined that a new message was present at the hub. SAM would check for messages at a preset time interval. When a new message was detected, the SAM MHS Gateway would receive and save the message in the MHS directory structure that was created when MHS was installed. SAM then checks the MHS directory structure for new MHS messages. Once SAM detects a new message, SAM opened the MHS message and translated that message (including the address) from the MHS Standard Message Format ("SMF") (the format of messages defined by MHS) to SAM's message format and thereby created a new message in the SAM format. SAM would then go through its routing and delivery process.

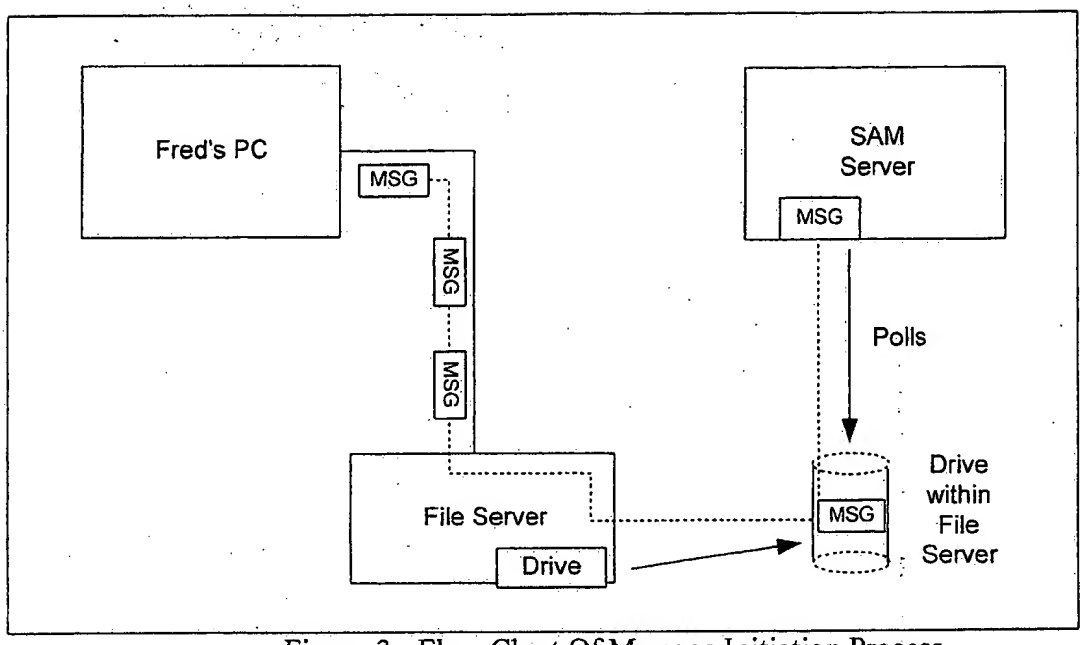

Figure 3: Flow Chart Of Message Initiation Process

41. If the routing (Site name address) information is local (*e.g.*, Tommy's PC address), routing logic is performed, and the message and appropriate receiving device address (*e.g.*, Tommy's PC's network address) is sent to the appropriate receiving device (*e.g.*, Tommy's PC) via a direct cable connection, a dial-up modem connection through the public switched telephone network or a LAN. Note, if more than one device is designated to receive a person's messages, SAM creates additional copies of the message for each device to which the message will be routed. If the routing (Site name address) information is not local to this SAM site, the message is queued for delivery to the appropriate remote site. Paging companies are considered remote sites, as are other SAM Servers, MHS, Teleprinters, and facsimile machines.[15]

a. Message Delivery Via A Generic Paging Company

42. To deliver the message to Tommy's pager, the SAM Server scans the queue for messages to deliver. Once the message is detected, the message is opened, decrypted and the

[15] SAM Servers could communicate via a direct connection, on a leased lined (point-to-point circuit), or dial up over a PSTN. Teleprinters and facsimile machines could communicate with the SAM Server via PSTN.

destination is determined. The SAM Server accesses the addressee's (Tommy's) user information by accessing Tommy's user profile in a look-up table in the SAM database (*e.g.*, the paging company or companies listed as devices ("users") in the SAMuser and SAMpage tables associated with Tommy).[16] SAM then takes the modem off the hook and dials the telephone number for Tommy's chosen paging company.[17] If the paging company answers, a connection is made to the paging company.[18] The paging company then sends an initial message (handshake) in Telocator Alphanumeric Protocol ("TAP") to the SAM Server. If the paging company requires a password, that is sent by SAM using TAP.[19] Regardless of whether a password is sent in accordance with TAP, SAM sends a packet containing the pager identification number (usually the pager's telephone number and/or PIN stored in the SAMUSER table) and the e-mail message, including the date and time stamps to the paging company.[20] The paging company then validates the pager identification number by comparing it against a list of valid identification numbers stored in a look-up table on the paging company's paging terminal computer. The paging terminal computer utilized processor(s) to perform this and other functions. If the identification number is valid, the process continues.[21] If multiple messages were waiting in the queues, then SAM can send all messages as part of one phone call and connection to the paging company. This is accomplished the same way as described above, but

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[16] If no match was found, or if Tommy had not selected an alphanumeric pager as a receiving device in SAMuser, the message would not be forwarded to the paging terminal. Likewise, if Tommy had completed his user profile incorrectly, an error would occur and the message would not be forwarded.

[17] If Tommy was using TekNow!'s paging company, the set-up procedure is essentially the same. However, the procedures performed at the paging company terminal are slightly different. Those procedures are described in paragraphs 46-50 below.

[18] If the paging company does not answer or the line is busy, the message is queued for another attempt. The maximum number of attempts and how long to wait between attempts can be configured for each remote site in SAMpage.

[19] The TAP specification is attached as Exhibit 14.

[20] The previous address information (Tommy's name) is removed by SAM as part of this process.

rather than hanging up the phone, the call is continued using the TAP and each message is delivered in succession.

43. Once the paging company receives the packet containing the identification number and messages and validates the identification number, it translates the pager identification number to a CAPCODE using, for example, a look-up table. The CAPCODE is a code programmed into the pager by the manufacturer that may be thought of as the physical address of the pager.[22] Once this translation occurs, SAM moves on to the next message to deliver and disconnects the call if all messages have been delivered.

44. The paging terminal then determines the paging transmitter(s) to which the message is to be sent and encodes the message and the associated CAPCODE for delivery to the pager. Usually the message would be encoded into either POCSAG or GOLAY, the paging protocols of that time. The transmitter is then keyed and the message and associated CAPCODE is sent via radio frequency ("RF") to the pager. Once Tommy's pager's radio interface receives the CAPCODE, software in the pager determines whether the CAPCODE was the pager's designated CAPCODE and, if so, activates the pager to process (*e.g.*, receive and store) the message. The message is then stored in an unused message slot (memory area).[23] The pager then notifies Tommy that he has received a message by beeping, vibrating and/or a visual indicator. *See* Exs. 8(A) and 8(B). Tommy can read the message by pressing the "read" button on the PMR2000 pager. The PMR2000 pager also had a processor that permitted the user (Tommy) to further manipulate the message (*i.e.*, read, delete, show message sources or

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[21] If the identification number is invalid, the paging company rejects the message and SAM continues on to the next message.

[22] Because pagers hear all the pages on their frequency, the CAPCODE is necessary to indicate to the pager that the message is for that pager.

selectively scroll the messages to, for example, determine messages to selectively print). Exs. 8(A) and 8(B). Tommy could also connect his PMR2000 pager to a Motorola Message Center printer and print the message or selected groups of messages. Exhibit 8(A) describes this process in more detail. Also, if Tommy's pager was an NEC D4α pager, he could transmit a message directly to another location such as his PC or laptop via the connectable printer's RS-232C interface. *See* Exhibit 10 at RIM 0101293.

45. A graphical summary of this process is depicted below.

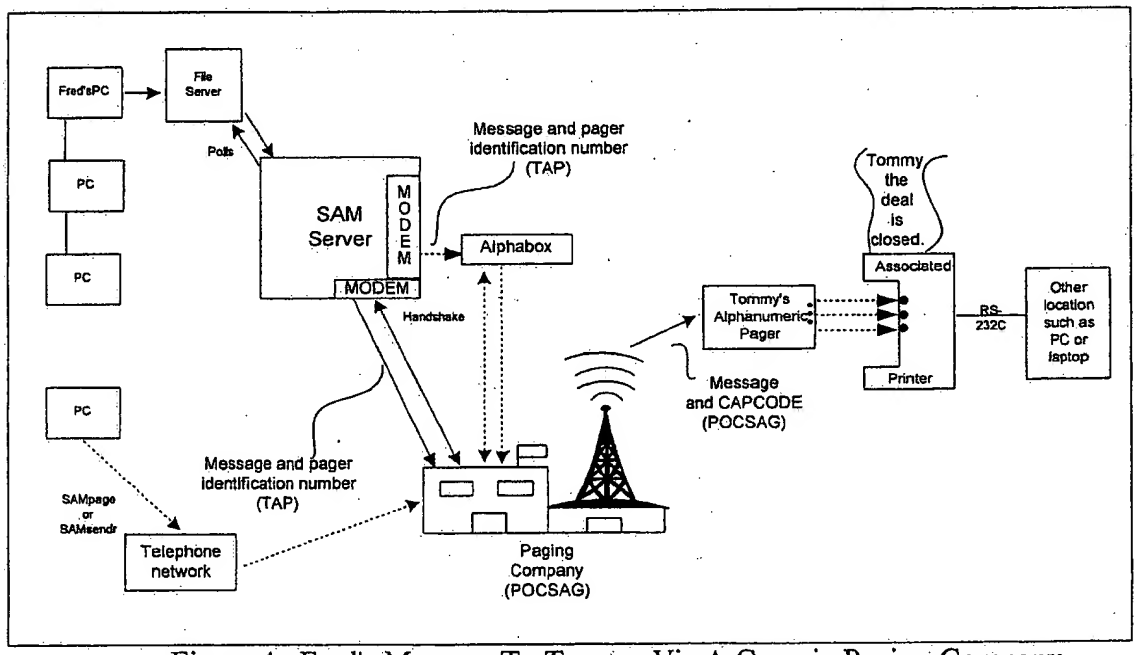

Figure 4: Fred's Message To Tommy Via A Generic Paging Company

b. Message Delivery Via TekNow!'s Paging Company

46. Many SAM clients also used TekNow! for paging services. TekNow! sold and leased pagers to clients as well as sold airtime on the its paging network on a monthly basis.[24] TekNow!'s paging company included a PC running a customized version of the Alphabox

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[23] The PMR2000 had several different CAPCODES and sixteen different message slots. *See, e.g.*, Ex. 8(A) at RIM 0107201.

[24] Several invoices for air time are included in the group of invoices attached as Exhibit 26.

(described below at paragraphs 55-56) software that acted as the paging terminal ("TekNow!'s Paging Server"). Microwave links from TekNow!'s Phoenix area office to paging transmitters located in the Phoenix area were also employed. The TekNow! Paging Server provided the encoding interface to the microwave transmitters and keyed and coordinated the transmitters.

47. Once the message arrived at the TekNow! Paging system, it would be processed. The TekNow! Paging system identified the PIN of the addressee's (Tommy's) pager and mapped the PIN number to the appropriate CAPCODE for the pager by using a look-up table maintained on the TekNow! Paging Server (PIN.DAT). If no match was found, an error occurred and the message was not transmitted. If a match was found, the CAPCODE information was added to the message packet. The TekNow! Paging Server discarded the PIN information such that only the message and CAPCODE information were transmitted. The TekNow! Paging Server could receive messages to be delivered to pagers via a dial-up modem connection using TAP in much the same fashion as any other paging company supporting alphanumeric paging. The TekNow! paging system utilized a computer that had a processor, storage and memory.

48. The TekNow! Paging system also was capable of receiving LAN initiated messages which would then be sent as pages. This type of communication was commonly used for TekNow! internal communications and also by The LINK. A key word in the SAMSETUP.DAT file ("DIRECT PAGES TO PATH = J:\SAMSERVE") identified to SAM that it was communicating directly with the TekNow! Paging Server. In such cases, a message file was created in a shared directory and the message was placed therein for transmission.

49. In either case, the TekNow! Paging Server translated the CAPCODE and message into the paging encoder's proprietary protocol, keyed the transmitter and sent the message and CAPCODE to the encoder. The encoder then encoded the message and CAPCODE to POSAG, appropriately increased or decreased the baud rate to the proper baud rate for transmission, and

sent the message and CAPCODE to the microwave transmitter. The microwave transmitter sent the CAPCODE and message to receivers located with TekNow!'s paging transmitters. The paging transmitters transmitted the message and CAPCODE to the alphanumeric pagers. The figure below depicts the process.

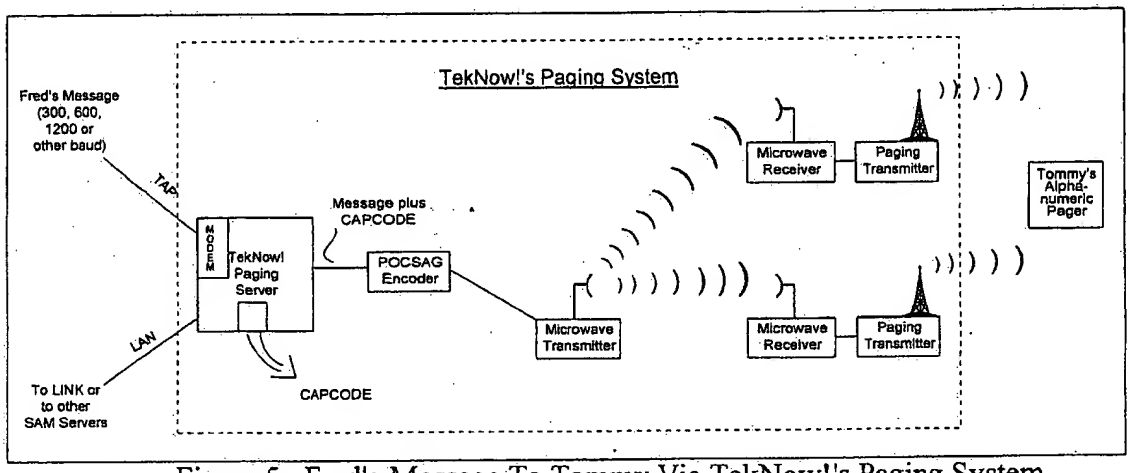

Figure 5: Fred's Message To Tommy Via TekNow!'s Paging System

50. There was also a special version of the SAM Server software that would talk directly to a paging encoder and lower power transmitter that was used for our in-house demonstration system and at trade shows. This system, unlike TekNow!'s commercial paging system, did not utilize the microwave link or the TekNow! Paging Server; rather, the message was sent from SAM directly to the encoder.

C. TekNow!'s Answering Service -- The LINK

51. TekNow! developed a full answering service system as another step to demonstrate the power and flexibility of the SAM software. This system was called The LINK. It was staffed twenty-four hours a day, seven days a week, and marketed to companies in the metro Phoenix area. The LINK will now be described with reference to the figure below.

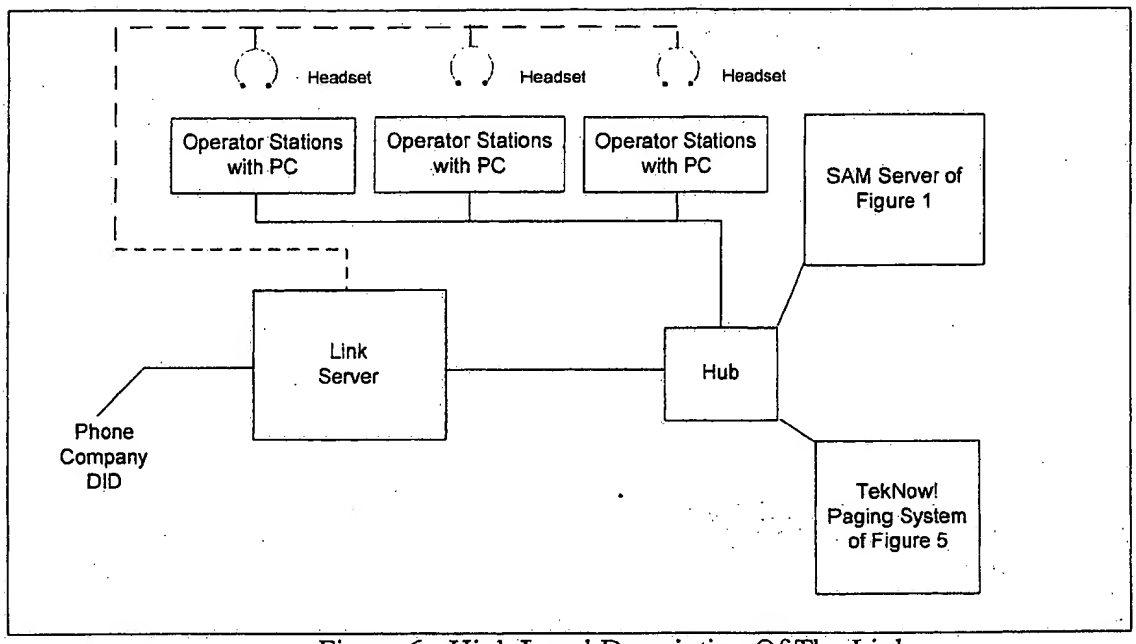

Figure 6: High Level Description Of The Link

52. The LINK consisted of a Link Server (a computer with custom software developed by TekNow!) outfitted with computer telephony hardware and a SAM Server. The computer telephony hardware allowed TekNow! to receive and control telephone calls, provide voice mail type services, route calls to Operator Stations and many other functions you would find in a phone system.[25] These functions were developed into the Link system which was based on SAM technology. The system had multiple Direct Inward Dial ("DID") phone lines coming into the server. A DID type phone line (lower left of the figure) allows you to have many phone numbers associated with one physical phone line and it also conveys the phone number dialed to the system where the call terminates, which in this case was The LINK Server. The LINK Server was also connected to a LAN with the Operator Stations (PC's) (upper portion of the figure), the operators' headsets, SAM Servers, and the TekNow! Paging System.

53. When a call came into The LINK system, the system identified the phone number called (*e.g.*, Tommy Traveler's) and looked up Tommy's information in The LINK database. The

[25] Several advertisements for The LINK are attached as Exhibits 15(A) and 15(B), respectively.

system then found an idle operator and "popped" a message on the operator's PC screen telling the operator how to answer the call. The operator would then accept the call, which, once accepted would be routed to the operator's headset. The operator would then speak with the caller and then key the message into the PC for delivery via SAM. Once this was completed, the operator disconnected the call. SAM routed the keyed message to the appropriate devices – that is, the receiving devices that Tommy identified in SAMuser. This capability (*i.e.*, the ability to route the message to one or more user's receiving devices) was a powerful feature of The LINK. Companies using SAM could have their message delivered to their SAM System, which would then route the message to whatever receiving devices they had set up on their SAM system thereby allowing the users on their own SAM System to determine where messages received from The LINK answering service would be sent.

54. In the case of Tommy, the message would be routed to each of the devices identified by Tommy in SAMuser. For example, if Tommy wanted to receive the messages on his alphanumeric pager, the message would be sent from The LINK to TekNow!'s Paging Server, then via microwave link to the transmitter and then to Tommy's pager. This pathway was described previously in Figure 5.

D. TekNow!'s Alphabox And SAMpage Products

1. TekNow!'s Alphabox Product

55. TekNow!'s early expertise in the wireless and paging industry lead to the development of additional products. One such product was the Alphabox. The Alphabox was an alpha paging port concentrator, which could handle up to 15 concurrent modem connections. The Alphabox received messages from one or more SAM Servers and/or other messaging systems, and processed the messages, each including information contained in the message and an identification of the alphanumeric pager that was to receive the message, to create a multiplexed data stream, which was then sent to the paging terminal. These functions were

performed by software applications running on, for example, an Intel 386SX microprocessor. *See* Exhibit 16 at RIM 0104658. Because ports on the paging terminals were very expensive, the Alphabox product was a moneysaver for paging companies. The attached brochure describes the Alphabox product in more detail. *See* Ex. 16. Exhibit 16 also provides a general overview of TekNow!, and its SAM, Alphabox, and SAMpage products. Also, as described previously, a customized Alphabox was used by TekNow! as its paging server.

56. When a paging company utilized an Alphabox, the Alphabox acted as an additional security device. As part of the TAP protocol, the Alphabox would ask the SAM Server for the pager identification number. SAM would then send that number to the Alphabox. The Alphabox would then interrogate the paging terminal to see if the identification number was valid. If the number was not valid, the page was rejected. If the number was valid, Alphabox would convert the message from TAP to the paging company's required protocol, send the message (including identification number) to the paging company, and disconnect the SAM Server that was calling. The Alphabox was compatible with all alpha entry devices and communicated with Glenayre, BBL, Spectrum and other industry standard paging terminals. Ex. 16 at RIM 0104650, 657-58. These terminals were utilized by a variety of paging companies, such as those mentioned previously in paragraph 35.

2. TekNow!'s SAMpage Product

57. SAMpage (not to be confused with the utility to setup paging companies in SAM) was a product that provided an easy way for people to compose a message on their PC and then have it delivered via a modem to a paging company for delivery to an alphanumeric pager. This was targeted at people who were purchasing/leasing alphanumeric pagers and needed a way to send a message to the pager. Paging companies at the time were looking for ways to promote alphanumeric paging and, of course, needed a solution to do this. SAMpage filled this need.

SAMpage required a PC, modem and a phone line. SAMpage was marketed directly by TekNow! and was also resold by paging companies.

58. SAMpage was composed of two major components (i) the sending utility (what you used to pop-up and send a message and (ii) the background dialer (the mechanism that dialed the paging company and delivered the message). Sending a message using SAMpage was very similar to how you would send a message using SAMshell. To send a message with SAMpage, the user would pop-up SAMpage, type in the addressee's name, the sender's name, the message, and press the F10 key to send the message and then return to whatever application the user was running. *See, e.g.*, SAMpage Manual, attached as Exhibit 17 at RIM 0103742-743, *see also* Ex. 16 at RIM 0104649, 655-56.[26] What made SAMpage very unique is that it would then, in the background (while the user was working in other programs), dial the paging company and deliver the page to the paging company. With other competing products, the user had to wait while the message was sent before returning to whatever application was running.

III. THE COMMERCIALIZATION OF SAM

59. TekNow! sold its products directly and through third-party resellers. TekNow! sold SAM and Alphabox directly. TekNow! sold its paging service (air time), LINK service, pagers, and SAMpage both directly and through third-party resellers. TekNow! also actively promoted its products by, for example, advertising them in trade publications and marketing them via direct mail.[27] Additionally, TekNow! demonstrated and/or promoted its products at its Phoenix area office and at several trade shows. Exhibits 19(A-D) contains materials that were distributed at various tradeshows, or otherwise used to promote TekNow!'s products. TekNow!

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[26] SAMpage contained a database which associated the user name with an alphanumeric pager identification number (PIN) and a particular paging company's telephone number.

[27] Example of promotional literature are attached as Exhibits 18(A-D). Advertisements for the LINK were attached previously as Exs. 15(A) and 15(B).

also submitted its products to various trade publications and companies for review. Several of these submissions resulted in reviews being published in trade publications. These marketing efforts resulted in numerous sales of SAM and other TekNow! products from 1987 through May 1990 and afterward.

60. Systems containing all of the functionality that I have previously described were sold and in use by TekNow!'s customers by at least the end of 1989. These customers, as well as TekNow!'s marketing and sales efforts and reviewer publications, are discussed in more detail below with reference to the appropriate documents.

A. TekNow!'s Sales And Its Customers' Use

61. TekNow!'s January 1, 1990 price list identifies the TekNow! products that were available as of January 1, 1990. *See* Exhibits 20(A) and 20(B), respectively. The products offered were compatible with numerous different types of e-mail systems some of which are detailed in attached Exhibit 21.

62. TekNow! maintained a database that identified its customers. A print out of TekNow!'s customers as of August 25, 1989 is attached as Exhibit 22.[28] Some of the larger customers included Tanner Southwest, U.S. West Communications ("U.S. West"), Arizona Clearing House Association ("ACHA"), ComputerLand of Arizona, Century 21 of the Southwest and PacTel Paging. Several of these customers, as well as some others, were used as references (*i.e.*, these were companies to which TekNow! referred other potential customers to allow the potential customers to inquire about the merits of TekNow!'s products). *See* Exhibit 24.

63. One large TekNow! customer was U.S. West Communications ("U.S. West"). In approximately early to mid-1988, TekNow! installed a SAM system at U.S. West. The system

[28] Lists of pagers utilized by TekNow! and its customers as of September 1, 1989 and September 25, 1989 are attached as Exhibits 23(A) and 23(B), respectively.

was up and running successfully by at least October 12, 1988. *See* Exhibit 25. U.S. West purchased additional equipment throughout the rest of 1988 and into 1989. *See e.g.*, Invoices attached as Exhibit 26 at RIM 0106548-550, 573, 577, 597-602, 618, 678; *see also* U.S. West Equipment Lists, attached as Exhibits 27(A) and 27(B), and additional U.S. West Information, attached as Exhibits 27(C) and 27(D), respectively. U.S. West had several SAM systems. These systems used message printers, alphanumeric pagers, Teleprinters and the MHS gateway feature. SAM was deployed on several floors of one of the corporate offices. Ironically, U.S. West, although one of the largest paging companies at the time, was also a TekNow! Paging System customer.[29] *See, e.g.*, Ex. 26 at RIM 0106573. Indeed, due mainly to the successful and daily use of SAM, U.S. West became interested in partnering with TekNow! *See, e.g.*, Ex. 27(D) proposal. No formal partnership was ever entered into, however.

64. Another major customer was Tanner Southwest. Tanner Southwest was one of TekNow!'s first customers with SAM systems operating by May 2, 1988. *See* Ex. 28(A). Tanner Southwest had earlier prototype versions of SAM (*e.g.*, the previously-described message system) much earlier. By the late 1980s, Tanner Southwest had at least six different SAM systems running at different locations throughout Arizona. Tanner Southwest had approximately three hundred message printers deployed and also utilized alphanumeric pagers and Teleprinters. Tanner Southwest was also a TekNow! paging customer.[30]

65. Another earlier TekNow! customer was the Arizona Clearing House Association ("ACHA"), which had SAM operating by May 2, 1988. *See* Ex. 28(A). ACHA purchased two different SAM systems. One was used as their office system and the other integrated with their production computer system. ACHA's system utilized SAM's application programming interface

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[29] TekNow! did not limit the number of characters that could be sent on its paging system and, therefore, that system was attractive to many companies, including other paging companies like U.S. West.

so ACHA's computer system (a group of computers used to move money between banks and between banks and the federal reserve) could provide their employees system status information, such as when errors occurred or critical processes were running, using SAM.

66. Specifically, ACHA had an error server linked to its computer system. That error server was also connected to ACHA's production SAM Server. If an error occurred in ACHA's computer system, an error message (system status information) would be generated by the error server. This information would then be sent to the production SAM Server via LAN and, depending on the severity of the error,[31] the production SAM Server would route the information to the appropriate persons' receiving devices as described previously. Additionally, the production SAM Server would route the information to the office SAM server (via dial-up modem), which, in turn, would route the information to additional persons' receiving devices, again as described previously. ACHA utilized at least alphanumeric pagers, Teleprinters, message printers as receiving devices. *See, e.g.*, Ex. 26 at RIM 0106555, 565, 575, 580, 594, 609, and 619; *see also* additional invoices attached as Exhibit 29(A) and ACHA survey results attached as Exhibit 29(B).

67. Other TekNow! customers included ComputerLand of Arizona,[32] Century 21 of the Southwest,[33] PacTel Paging,[34] and others.[35]

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[30] Tanner Southwest employers were very satisfied with the SAM. *See, e.g.*, Exhibit 28(B).

[31] The error types were grouped/ranked into several different levels of severity.

[32] ComputerLand of Arizona, also known as Dataphaz, had a SAM that was used for office communication and to dispatch service technicians via alphanumeric pagers. They were also a TekNow! paging customer. *See, e.g.*, Ex. 26 at RIM 0106554 and 574. Computerland was happy with SAM. *See* Exhibit 36.

[33] Century 21 had a SAM with message printers, alphanumeric pagers and Teleprinters. Century 21 was also a TekNow! paging and the LINK customer. *See, e.g.*, Ex. 26 at RIM 0106556, 576, and 605.

[34] PacTel paging was a reseller of SAMpage and was TekNow!'s first Alphabox installation. *See, e.g.*, Ex. 26 at RIM 0106553.

68. Another large sale occurred in early May 1990. Specifically, Mobilecomm "BellSouth" purchased SAM, Alphabox, Novell file server and systems, and some custom programming from TekNow! *See* Ex. 26 at RIM 0106557. The configuration document was attached as part of the Custom Software Development, Software License, and Bundled Hardware Purchase Agreement. *See* Exhibit 30(A) at RIM 0101354. The quotation is attached as Exhibit 30(B). This sale was the culmination of several months worth of effort.

B. TekNow!'s Offers For Sale And In-House Demonstrations

69. TekNow! maintained a demonstration system that was used to show all of SAM capabilities at its offices in Phoenix, Arizona. The demo system was self contained and had one or more of each sending device and receiving device (*see* figure 1) supported by SAM. The demo system was used to demonstrate SAM's capabilities to people who came into our offices, as well as at trade shows. The demo system provided an easy way to demonstrate how easy it was to send a message to a pager, message printer or any other device using SAM. It also provided a great way to show how SAM could send the same message to multiple devices just as easily as sending to one device. As discussed above in paragraph 50, the demo system incorporated a paging encoder and low power transmitter to demonstrate paging capabilities (this was primarily used as we attended trade shows where there were not transmitters available on the frequency for our pagers). TekNow! also had a mini phone system so that products that used phone lines, such as SAMpage, the Telecomputer, and Teleprinter could be demonstrated without having to purchase many phone lines at a trade show. This provided a totally self

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[35] Other customers included PageNet, which was an Alphabox customer and a reseller of SAMpage, and American Paging, which was a reseller of SAMpage. Exhibit 22 lists all of TekNow!'s customers through August 1989. TekNow! also submitted offers to customers such as the offer to Dairy Service Network attached as Exhibit 37.

contained system that showed all the features and benefits of SAM and could be moved just about anywhere.

C. TekNow! Demonstrated SAM At Numerous Trade Shows

70. TekNow! also actively promoted its products at tradeshows. For example, the photograph copies attached as Exhibit 31 are of the October 1989 Telocator show in Washington, D.C. Telocator was the tradeshow of choice for the wireless and paging industry. TekNow! demonstrated SAM, the Alphabox and SAMpage during this show using the previously mentioned demo system. To perform the demonstration, TekNow! re-assembled the demo system at its booth and offered free demonstrations to all comers. To send a message, a tradeshow attendee hit the appropriate hotkey to pop-up SAM. The attendee then typed in an address (*e.g.*, "Dave") in the "For" line, typed the message and hit send. SAM did the rest. Within seconds the message would appear on the Motorola PMR2000 demonstration pager assigned to me. The attendee could also send the message to everyone. In that case the message would appear on the previously mentioned receiving devices, as well as on all the demonstration pagers. During the show, hundreds of attendees participated in this demonstration and many others witnessed it.

71. In addition to the live demonstration, TekNow! distributed brochures, manuals and other types of promotional materials at the show explaining its products and services. *See, e.g.*, Exhibits 32 and 19(A-D), which contains these types of brochures. TekNow! also provided take home demo disks of SAMpage that could be installed on the attendee's PC.

72. TekNow! also participated in various, smaller regional tradeshows as well. Although the demonstration system was normally not set-up at these shows, brochures and other promotional materials were distributed explaining the details of SAM, as well as other TekNow! products.

I declare under penalty of perjury that the foregoing is true and correct.

~~August __, 2002~~
9/3/2002

David A. Keeney

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